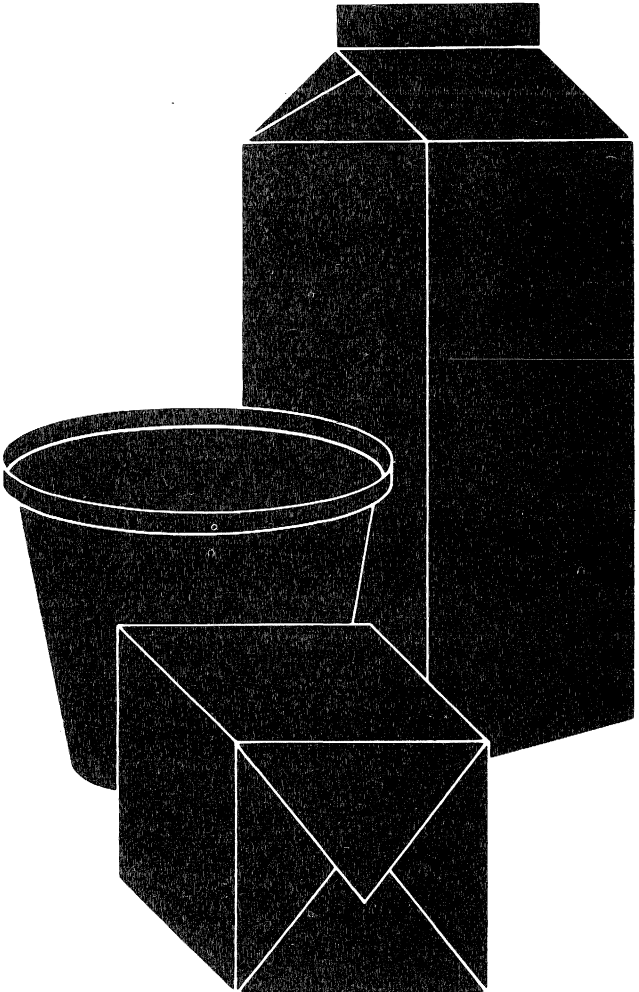


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# HOW TO BUY

## DAIRY PRODUCTS . 22



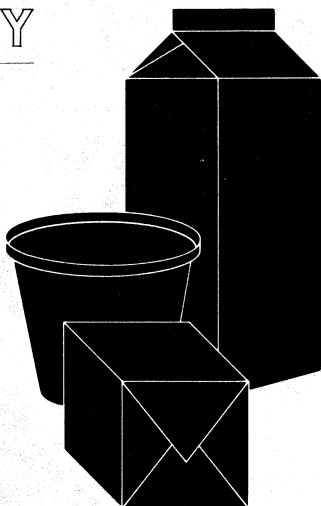
UNITED STATES  
DEPARTMENT  
OF AGRICULTURE

HOME AND  
GARDEN BULLETIN  
NUMBER 201

PREPARED BY  
FOOD SAFETY  
AND QUALITY  
SERVICE

## HOW TO BUY

# DAIRY PRODUCTS



The many kinds of milk and dairy products on the market today provide a wide choice for consumers. Milk is an excellent source of calcium, a mineral needed daily to maintain good health. Milk also contains protein, riboflavin, many other vitamins and minerals, sugar, and fat.

The Recommended Dietary Allowances for milk are established by the National Academy of Sciences—National Research Council on the basis of calcium content. They are:

For children under 9, two or three 8-ounce glasses each day; for children 9 to 12 and pregnant women, three or more glasses; for teenagers and nursing women, four or more; and for adults, two or more.

These allowances can be met with whole milk or the many kinds of milk available with reduced milkfat content. Cheese, ice cream, yogurt, and other foods made with milk products can also substitute for fluid milk to meet the recommended allowances. The milk equivalencies chart at the end of this pamphlet lists some of these alternatives.

To help you choose among the various kinds of dairy products on the market, this pamphlet provides a dairy dictionary and explains the U.S. Department of Agriculture (USDA) quality grades which may be found on some manufactured dairy products.

# MARKS OF QUALITY

USDA has established U.S. grade standards that describe different levels of quality (grades) in butter, Cheddar cheese, and Colby, Monterey, and Swiss cheese.

Manufacturers use the grade standards to identify levels of quality, to have a basis for establishing prices at wholesale, and to provide consumers with a choice of quality levels.

USDA also provides inspection and grading services which manufacturers, wholesalers, or other distributors may request. A fee is charged to cover the cost of the service. Products which are officially graded may carry the USDA grade shield.

The **U.S. Grade AA or Grade A** shield is most commonly found on butter, and sometimes on Cheddar cheese.



**U.S. Extra Grade** is the grade name for instant nonfat dry milk of high quality. Processors who use USDA's grading and inspection service may use the official grade name or shield on the package.



The "**Quality Approved**" shield may be used on cottage cheese, or other cheeses for which no official U.S. grade standards exist, if the products have been inspected for quality under USDA's grading and inspection program.



Before grading or inspection of a dairy product is provided, the processing plant must meet USDA's specifications for quality and sanitation. A USDA dairy inspector checks the plant, incoming raw products, and processing and packaging techniques.

More information on the U.S. grades is given in the listings for butter, cheese, and instant nonfat dry milk in the dairy dictionary that follows.

# **DAIRY DICTIONARY**

## **INTRODUCTION**

Milk available in stores today is usually pasteurized and homogenized.

In pasteurizing, milk is heated briefly to kill harmful bacteria, and it is then chilled rapidly.

Homogenized milk is processed to reduce the size of the milkfat globules so the cream does not separate and the product stays uniform throughout.

Depending on its milkfat content, fluid milk is labeled milk, lowfat milk, or skim milk. Vitamin D may be added to any of these milks, and the milk is then so labeled. If added, the vitamin D content must be increased to at least 400 International Units (I.U.) per quart. Lowfat and skim milk are fortified with vitamin A (at least 2,000 I.U. per quart), usually providing more vitamin A than whole milk. The protein and other vitamin and mineral content of milks with reduced milkfat are equivalent to that of whole milk.

Federal, State, and local laws or regulations control the composition, processing, and handling of milk. Federal laws apply when packaged or bottled milk is shipped interstate.

The Pasteurized Milk Ordinance of the Food and Drug Administration (FDA), U.S. Department of Health, Education, and Welfare, requires that all packaged or bottled milk shipped interstate be pasteurized to protect consumers. Milk can be labeled "Grade A" if it meets FDA or State standards under the Pasteurized Milk Ordinance. The

Grade A rating designates wholesomeness rather than a level of quality. According to the standards recommended in the ordinance, Grade A pasteurized milk must come from healthy cows and be produced, pasteurized, and handled under strict sanitary controls which are enforced by State and local milk sanitation officials.

In the definitions that follow, the composition or milkfat content given for a product (except for butter) is that required under FDA regulations. Your State laws or regulations may differ somewhat from FDA's. The milkfat content of butter is set by a Federal law.

## **MILK**

### **Whole Milk**

Whole milk is usually homogenized and fortified with vitamin D. For shipment in interstate commerce, it must contain a minimum of 3.25 percent milkfat. The milk must also meet minimum milkfat requirements set by the State or municipality where it is sold.

### **Lowfat Milk**

Lowfat milk has between 0.5 and 2 percent milkfat and is fortified with vitamin A. The addition of vitamin D is optional.

#### **Tip on Lowfat Milk**

Lowfat milk can be made at home by mixing half whole milk with half skim milk or reconstituted instant nonfat dry milk.

### **Skim Milk**

Skim milk must have less than 0.5 percent milkfat and must be fortified with vitamin A. The addition of vitamin D is optional.

#### **Tip on Skim Milk**

The flavor and food value of skim milk can be improved by adding a teaspoonful of instant nonfat dry milk to each glass.

## **Flavored Milks**

Flavored milks are made by adding fruit , fruit juice , or other natural or artificial food flavorings such as strawberry , chocolate sirup , or cocoa to pasteurized milk.

### **Tips on Chocolate-Flavored Milk**

- Regular , lowfat , or skim chocolate-flavored milk can be heated for quick and easy hot chocolate.
- You can use chocolate-flavored milk in cookie or cake recipes that call for both milk and chocolate or cocoa.

## **Buttermilk**

All commercially sold buttermilk is cultured , which means that a lactic acid-producing bacterial culture is added to freshly pasteurized skim or partially skimmed milk to produce the buttermilk. It is much thicker than skim milk. Buttermilk is a good thirst quencher.

### **Tips on Buttermilk**

- Always keep cultured buttermilk chilled. If it is allowed to warm , it may separate. If it does separate , just stir it.
- Dried buttermilk , a byproduct of buttermaking , is used in pancake mixes and bakery products.

## **Dry Whole Milk**

Dry whole milk is pasteurized whole milk with the water removed. It has limited retail distribution — mainly for use in infant feeding and for people without access to fresh milk , such as campers. Dry whole milk is usually distributed to chocolate and candy manufacturers.

### **Tip on Dry Whole Milk**

- An opened package should be tightly sealed and stored in a cool, dry place. It develops off-flavors if not used soon after opening.

## Nonfat Dry Milk

Nonfat dry milk, made by removing nearly all of the fat and water from pasteurized milk, contains about half the calories of whole milk.

"Instant" nonfat dry milk is made of larger particles that dissolve more easily in water. Some instant nonfat dry milk contains added vitamins A and D.

To earn the "U.S. Extra Grade" shield, instant nonfat dry milk must have a sweet and pleasing flavor and a natural color. It must also dissolve immediately when mixed with water.



### Tips on Nonfat Dry Milk

- Nonfat dry milk needs no refrigeration and can be stored for several months in a cool, dry place. An opened package should be tightly resealed. After nonfat dry milk is reconstituted, refrigerate and handle like fresh milk.
- Use nonfat dry milk both as a beverage and in cooking. When you use it as a beverage, reconstitute it several hours before serving to allow time to chill.

## Evaporated Milk

This type of milk is prepared by heating homogenized whole milk under a vacuum to remove half its water, sealing it in cans, and thermally processing it. When evaporated milk is mixed with an equal amount of water, its nutritive value is about the same as whole milk. Evaporated skim milk is also available.

### Tips on Evaporated Milk

- Always refrigerate after opening.
- Used full strength, evaporated milk adds extra nutritive value to your diet.
- Evaporated milk, with an equal amount of water added, may replace fresh milk in recipes. It

can also be used in coffee or on hot or cold cereal.

## **Sweetened Condensed Milk**

This concentrated canned milk is prepared by removing about half the water from whole milk. Often used in candy and dessert recipes, sweetened condensed milk has at least 40 percent sugar by weight.

## **CREAM**

FDA sets standards of composition for milk and different types of cream. These standards give minimum milkfat requirements which must be met if the product is to be shipped in interstate commerce.

### **Cream or Light Cream**

Cream or light cream must have at least 18 percent milkfat and less than 30 percent.

#### **Tip on Cream and Light Cream**

- For maximum shelf life, do not return unused cream from a pitcher to its original container. Store it separately in the refrigerator. Try to pour only as much from the original container as you need at one time.

### **Half-and-Half**

Half-and-Half is made by homogenizing a mixture of milk and cream. It must contain at least 10.5 percent milkfat, but not more than 18 percent.

#### **Tip on Half-and-Half**

- Half-and-half can be mixed at home using half homogenized whole milk and half light cream.

### **Light Whipping Cream**

Light whipping cream must have at least 30 percent milkfat and less than 36 percent.

#### **Tip on Light Whipping Cream**

- To whip this kind of cream, have both the bowl and cream well chilled.



## **Heavy Cream**

Heavy cream must have at least 36 percent milkfat.

### **Tip on Heavy Cream**

- Although heavy cream is more easily whipped than light whipping cream, it will whip still more easily if you have the cream and the bowl well chilled. Don't over-whip heavy cream; it may become grainy.

## **Sour Cream**

Sour cream is made by adding a special bacterial culture to light cream. The bacteria produce lactic acid, which sours the cream. Sometimes manufacturers use food-grade acid instead of bacteria to make sour cream. The product must be labeled acidified sour cream if this process is used. Acidified sour cream has the same wholesomeness as sour cream; the only difference is the manufacturing process. Both sour cream and acidified sour cream are smooth and thick and meet the milkfat requirements for light cream.

## **Sour Half-and-Half**

A bacterial culture or a food-grade acid is used to make sour half-and-half. FDA standards of identity require the product to be labeled acidified sour half-and-half if food-grade acid is used.

### **Tip on Sour Half-and-Half**

- Use sour half-and-half instead of sour cream if you prefer less fat.

# BUTTER

Butter is made by churning pasteurized cream. It must have at least 80 percent milkfat according to Federal law. Salt and coloring may be added.

Whipped butter is regular butter whipped for easier spreading. Whipping increases the amount of air in butter and increases the volume of butter per pound.

The USDA grade shield on butter packages means that butter has been tested and graded by experienced Government graders. In addition to checking the quality of the butter, the graders also test its keeping ability.

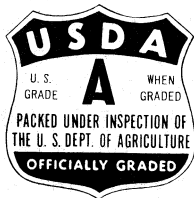
## U.S. Grade AA butter

- has a delicate sweet flavor, with a fine, highly pleasing aroma.
- is made from fresh sweet cream.
- has a smooth, creamy texture with good spreadability.
- has salt completely dissolved and blended in just the right amount.



## U.S. Grade A butter

- has a pleasing flavor
- is made from fresh cream
- is fairly smooth in texture.



## Tips on Butter

- Unsalted butter may be labeled "sweet" or "unsalted" butter. Some people prefer its flavor.
- Butter adds flavor in baking or basting turkey or chicken.
- When using whipped butter in place of regular butter in recipes, use 1/3 to 1/2 more than the recipe calls for if the measurement is by volume (1 cup, 1/2 cup, etc.). If the measurement is by

weight (1/4 pound, 1/2 pound, etc.). use the amount called for.

- Store butter in its original wrapper or container so it won't pick up flavors from other foods.

- Make butter the first ingredient on sandwiches. It adds moisture and flavor and keeps the filling from soaking the bread.

## CHEESE

### Natural Cheese

There are hundreds of varieties of natural cheese. Cheese is generally made from whole milk, although skim milk, cream, and goat's milk are also used. Cheesemaking consists of separating most of the milk solids from the milk by coagulating with bacterial culture and rennet or a microbial enzyme. The curd is then separated from the whey by heating, stirring, and pressing.

After the cheese has been formed into its characteristic shape, it is given a wax or other protective coating and allowed to age for varying lengths of time, depending on the kind of cheese being made. When the cheese has reached its proper aging or curing state, it is cut into sizes suitable for consumer use.

You may find the U.S. Grade AA shield on Cheddar Cheese in some stores.

**U.S. Grade AA** cheese has

- fine, highly pleasing Cheddar flavor
- smooth, compact texture
- uniform color and attractive appearance.



## Process Cheese

Process cheese is a blend of cheeses which have been shredded, mixed, heated, and then molded. No further ripening occurs. Process cheese may contain pimentos, fruits, vegetables, or meats.

If the label says "process cheese food," other ingredients such as nonfat dry milk or whey solids and water have been added, resulting in a lower milkfat content and more moisture than process cheese.

"Process cheese spread" has an even higher moisture content and lower milkfat content than process cheese and cheese food. As a result, it's more spreadable.

Process cheese products usually come packed in slices, loaves, and jars.

## Cottage Cheese

Cottage cheese is a soft unripened cheese that comes in three styles: cottage cheese, dry curd cottage cheese, and lowfat cottage cheese. The milkfat content of each is defined in FDA standards of identity.

Dry curd cottage cheese must contain less than 0.5 percent milkfat.

Cottage cheese must have a milkfat content of at least 4 percent. To make cottage cheese, curd is mixed with a creaming mixture to raise the milkfat content to the required level.

The milkfat content of lowfat cottage cheese must be between 0.5 and 2 percent. FDA regulation require that the milkfat content of lowfat cottage cheese be listed on the container to the nearest one-half percent.

Cottage cheese may bear the USDA "Quality Approved" shield if it is of good quality and made under USDA supervision. During processing, a USDA inspector keeps constant check on all aspects of product quality, right down to a final check on the product in consumer packages.



### **Tips on Cottage Cheese**

- No matter what kind of cottage cheese you buy, use it within a few days after purchase.

For more information on the great variety of cheeses available, see "How to Buy Cheese," G-193. For a free copy, order by number from the Office of Governmental and Public Affairs, U.S. Department of Agriculture, Washington, D.C. 20250.

## **YOGURT**

Milk is cultured with a special bacteria to make custard-like yogurt. It is usually made from homogenized, pasteurized lowfat milk, and may be enriched with nonfat dry milk solids. Yogurt has the same nutritive value as the milk from which it is made.

### **Tips on Yogurt**

- If separation occurs, just stir the liquid back into the yogurt.
- Sweetened and fruit-flavored yogurt is available in sundae-style with the fruit at the bottom, and swiss-style with the fruit distributed throughout the yogurt. A frozen form of yogurt is also available.
- Unopened fruit-flavored yogurt may be kept frozen for as long as 6 weeks. To defrost, let the yogurt stand at room temperature about 3 hours.

## **FROZEN DESSERTS**

### **Ice Cream**

Ice cream is made from cream, milk, sweeteners, flavorings, stabilizers, and emulsifiers. To be shipped in interstate commerce, it must contain at least 10 percent milkfat.

### **Frozen Custard (French Ice Cream)**

Frozen custard, also called French ice cream or New York ice cream, has egg yolks added.

## **Ice Milk**

Ice milk, made from milk, stabilizers, sweeteners, and flavorings, must contain between 2 and 7 percent milkfat if shipped in interstate commerce. The soft-serve frozen desserts are similar to ice milk, but are specially processed to be served soft.

## **Sherbet**

Sherbet, made from milk, fruit or fruit juice, stabilizers, and sweeteners, has about twice as much sweeteners as ice cream. It must have 1 to 2 percent milkfat.

### **Tips on Frozen Dessert**

- Keep frozen desserts in tightly closed cartons. If you store them in the freezer of your refrigerator, try to use them within a week. Frozen desserts stored in a deep freezer at temperatures below zero will keep about a month. Hard freezing prevents formation of ice crystals.
- Frozen desserts are easier to serve if placed in the refrigerator before serving—about 10 minutes for a pint and 20 minutes for a half gallon.

## MILK EQUIVALENCIES

On the basis of the calcium they provide, the following are alternatives for 8 ounces of fresh whole milk :

- 1-1/3 ounces Cheddar cheese
- 1-1/2 ounces process American cheese
- 1-1/3 cups cottage cheese
- 1 cup cocoa made with milk
- 1 cup custard
- 1-1/3 cups ice cream
- 1 cup ice milk, soft serve
- 3/4 cup homemade macaroni and cheese
- 1 milkshake (made with 2/3 cup milk and  
1/2 cup ice cream)
- 1 cup oyster stew
- 1-1/2 to 1-2/3 cup canned cream soup,  
prepared with equal volume of milk
- 1 cup unflavored yogurt

# HOW TO BUY DAIRY PRODUCTS

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## KNOW PRODUCT DIFFERENCES

Fluid milk: whole,  
lowfat, skim.

Dry milk: whole,  
nonfat.

Butter: salted or  
sweet, regular or  
whipped.

Cheese: natural,  
process

## LOOK FOR THE USDA GRADE



### U.S. Grade AA & U.S. Grade A

Found on butter,  
Cheddar cheese.

Mean good flavor,  
texture; high quality.

### U.S. Extra Grade

Found on instant non-  
fat dry milk. Means  
pleasing flavor.